BULL TROUT
(Jarbidge River Population)
Salvelinus confluentus

Family: Salmonidae
Genus: *Salvelinus*
Species: *confluentus*
Habitat: Cold, clear tributary streams and rivers (Populations elsewhere also inhabit lakes, reservoirs, and coastal zones)
Length: Resident form - 12 inches (maximum); Migratory form – 24+ inches
Lifespan: 12+ years
Food: Macrozooplankton, terrestrial and aquatic insects, fish

STATUS:
Listed as endangered on August 10, 1998; reclassified as threatened on April 8, 1999.

REPRODUCTION AND DEVELOPMENT:
Bull trout usually mature between 4-7 years of age. An individual may spawn annually or every other year. Bull trout typically spawn from August through November during periods of decreasing water temperatures. Spawning habitat consists of low-gradient stream reaches with loose, clean gravel. Redds are often constructed in spring-fed areas with cold ground water. Eggs incubate from 100 to 145 days depending on the water temperature. Fry may remain in the gravel after hatching for an additional 60-100 days, normally emerging from early April through May.

DISTRIBUTION AND HABITAT:
Bull trout in the Jarbidge River population occur in the mainstem Jarbidge River in Idaho and Nevada, as well as headwater tributary streams in Nevada. These streams include the East and West Forks and their headwaters including the Cougar, Dave, Fall, Jack, Pine, and Slide Creek drainages. Bull trout also have access to seasonally-suitable habitat downstream in the Bruneau River in Idaho, but it is unknown if they currently migrate out of the Jarbidge River.

Bull trout are associated with cover in the form of large woody debris, undercut stream banks, boulders, and pools. Bull trout are primarily found in colder streams (below 59 ^{o}F), but have been found in temperatures up to 64 ^{o}F in Nevada. Spawning habitats and juvenile rearing areas are generally in stream reaches with water temperatures below 48 ^{o}F in the fall, moderate gradient (less than 12 percent), and minimum flow rates of at least 1 cubic foot per second.

THREATS:

Bull trout have been negatively affected by the combined effects of a variety of factors, including habitat degradation and fragmentation, blockage of migration corridors, poor water quality, past fisheries management practices, and the introduction of nonnative species. Dams and diversion structures on the Snake and Bruneau Rivers have eliminated connectivity between the Jarbidge River and other bull trout populations for over 100 years. Warm water temperatures in portions of the Jarbidge River watershed seasonally restrict bull trout movements. Historically, mining contributed to degraded water quality conditions in the watershed. Inactive mine sites are currently being evaluated for contributions to surface water. Roads and livestock grazing contribute sediment to bull trout streams and impact riparian areas. Nonnative fish (cutthroat, rainbow, and brook trout) were stocked in the Jarbidge River watershed for approximately 40 years. Brook trout are the only remaining nonnative fish present, and although their current distribution does not overlap with bull trout, they represent a threat through potential hybridization. The Jarbidge River Bull Trout Recovery Team is developing a recovery plan to address threats for this bull trout population.